

SEQUENCE LISTING

<110> GARVER, Eric
TU, Guang-Chou
ISRAEL, Yedy

<120> METHODS OF INHIBITING ALCOHOL CONSUMPTION

<130> 9855-3U2

<140> NOT YET ASSIGNED

<141> 2001-08-17

<150> US 60/051,705

<151> 1997-07-03

<150> US 09/109,663

<151> 1998-07-02

<160> 111

<170> PatentIn Ver. 2.1

<210> 1

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 1

cctcgtgag ttctgccgc t

21

<210> 2

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 2

ccgtgctcat ggtgtcctt c

21

<210> 3
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 3
gatcatgctt tccgtgctca t 21

<210> 4
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 4
ggcactcacc tcctccttgt t 21

<210> 5
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 5
acacttactg agtgtgaggg t 21

<210> 6
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 6
aaacttacct acgacgtggg c

21

<210> 7
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 7
gtcgcctcac agagcaatga c

21

<210> 8
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 8
agtgagttcc gaaagcccat t

21

<210> 9
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 9
ggcatcgaca ttcggggatc c

21

<210> 10
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 10

tgatccactc ccccctccac t

21

<210> 11

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 11

cagccttgatg agccagaggc a

21

<210> 12

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 12

ggaggcctga gacatcttca g

21

<210> 13

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 13

agggaaggaa ggaaggaagg g

21

<210> 14
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 14
ctgagggagg gaaggaagga a

21

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 15
ggttccgtaa ggaaggctgg

20

<210> 16
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 16
aataataaat aataaataaa t

21

<210> 17
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 17
ttcccaacgc tgggtcctcc a

21

<210> 18
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 18
ccccgatcc actcaggcat c

21

<210> 19
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 19
actccccga tccactcagg c

21

<210> 20
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 20
tccactcccc cgatccactc a

21

<210> 21
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 21

ccctccactc ccccgatcca c

21

<210> 22

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 22

ccccctcca ctccccgat c

21

<210> 23

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 23

actccccct ccactcccc g

21

<210> 24

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 24

tccactcccc cctccactcc c

21

<210> 25

<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 25
tgatccactc cccctccac t

21

<210> 26
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 26
gcctgatcca ctccccctc c

21

<210> 27
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 27
gcagcctgat ccactcccc c

21

<210> 28
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 28

gaggcagcct gatccactcc c

21

<210> 29

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 29

agtggagggg ggagtggatc a

21

<210> 30

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 30

ccctcactgc tacctcacct c

21

<210> 31

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 31

actccccct ccaactcccc

19

<210> 32

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 32

tccactcccc cgatccac

18

<210> 33

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 33

tgatccactc ccccct

16

<210> 34

<211> 3634

<212> DNA

<213> Homo sapiens

<400> 34

gaattccggg tgatttcact cccggctgtc caggcttgct ctgctacccc acccagcctt 60
tcctgaggcc tcaagcctgc caccaagccc ccagctcctt ctccccgcag gacccaaaca 120
caggcctcag gactcaacac agcttttccc tccaaccogt tttctctccc tcaacggact 180
cagctttctg aagccccctc cagttctagt tctatctttt tcctgcatcc tgtctggaag 240
ttagaaggaa acagaccaca gacctggtcc ccaaagaaa tggaggcaat aggttttgag 300
gggcatgggg acgggggttca gcctccaggg tcctacacac aaatcagtca gtggcccaga 360
agacccccct cggaatcgga gcaggaggga tggggagtgt gaggggtatc cttgatgctt 420
gtgtgtcccc aactttccaa atccccgccc ccgcgatgga gaagaaaccg agacagaagg 480
tgcaggggcc actaccgctt cctccagatg agctcatggg tttctccacc aaggaagttt 540
tccgctggtt gaatgattct ttccccgccc tcctctcgcc ccagggacat ataaaggcag 600
ttgttggcac acccagccag cagacgctcc ctacagcaagg acagcagagg accagctaag 660
agggagagaa gcaactacag accccccctg aaaacaaccc tcagacgcca catcccctga 720
caagctgcca ggcagggttct cttcctctca catactgacc cacggcttca cctctctccc 780
cctgaaaagg acaccatgag cactgaaagc atgatccggg acgtggagct ggccgaggag 840
gcgctcccca agaagacagg ggggccccag ggctccaggc ggtgcttggt cctcagcctc 900
ttctccttcc tgatcgtggc aggcgcacc acgctcttct gcctgctgca ctttgagtg 960
atcggtcccc agagggaaga ggtgagtgc tggccagcct tcacccactc tcccacccaa 1020
ggggaaatga gagacgcaag agaggagag agatgggatg ggtgaaagat gtgcgctgat 1080
agggagggat gagagagaaa aaaacatgga gaaagacggg gatgcagaaa gagatgtggc 1140
aagagatggg gaagagagag agagaaagat ggagagacag gatgtctggc acatggaagg 1200
tgctcactaa gtgtgtatgg agtgaatgaa tgaatgaatg aatgaacaag cagatatata 1260
aataagatat ggagacagat gtgggggtgt agaagagaga tgggggaaga aacaagtgat 1320

atgaataaag atggtgagac agaaagagcg ggaaatatga cagctaagga gagagatggg 1380
 ggagataaag agagaagaag ataggggtgtc tggcacacag aagacactca gggaaagagc 1440
 tgttgaatgc tggaaggtga atacacagat gaatggagag agaaaaccag acacctcagg 1500
 gctaagagcg caggccagac aggcagccag ctgttctctc ttttaaggggtg actccctcga 1560
 tgtaaacat tctccttctc cccaacagtt ccccagggac ctctctctaa tcagccctct 1620
 ggcccaggca gtcagtaagt gtctccaaac ctctttccta attctgggtt tgggtttggg 1680
 ggtaggggta gtaccggtat ggaagcagtg ggggaaattt aaagttttgg tcttggggga 1740
 ggatggatgg aggtgaaagt aggggggtat tttctaggaa gtttaagggt ctcagctttt 1800
 tcttttctct ctctcttca ggatcatctt ctggaacccc gagtgacaag cctgtagccc 1860
 atgttgtagg taagagctct gaggatgtgt cttggaactt ggagggctag gatttgggga 1920
 ttgaagcccg gctgatggta ggagaactt ggagacaatg tgagaaggac tcgctgagct 1980
 caaggggaag gtggaggaac agcacaggcc ttagtgggat actcagaacg tcatggccag 2040
 gtgggatgtg ggatgacaga cagagaggac aggaaccgga tgtggggtgg gcagagctcg 2100
 agggccagga tgtggagagt gaaccgacat ggccacactg actctcctct ccctctctcc 2160
 ctccctccag caaacctca agctgagggg cagctccagt ggctgaaccg ccggggccaat 2220
 gccctcctgg ccaatggcgt ggagctgaga gataaccagc tgggtgggtgcc atcagagggc 2280
 ctgtacctca tctactcca ggtcctcttc aaggggccaag gctgcccctc caccatgtg 2340
 ctctcaccc acaccatcag ccgcatcgcc gtctcctacc agaccaaggt caacctctc 2400
 tctgcatca agagcccctg ccagagggag accccagagg gggctgaggc caagccctgg 2460
 tatgagccc tctatctggg aggggtcttc cagctggaga agggtgaccg actcagcgct 2520
 gagatcaatc ggcccagcta tctcgacttt gccgagtctg ggcaggtcta ctttgggatc 2580
 attgccctgt gaggaggagc aacatccaac cttcccaaac gcctcccctg cccaatccc 2640
 tttattacc cctccttcag acacctcaa cctcttctgg ctcaaaaaga gaattggggg 2700
 cttagggctg gaaccaagc ttagaacttt aagcaacaag accaccactt cgaaacctgg 2760
 gattcaggaa tgtgtggcct gcacagtga gtgctggcaa ccaactaagaa ttcaaactgg 2820
 ggctccaga actcactggg gcctacagct ttgatccctg acatctggaa tctggagacc 2880
 agggagcctt tggttctggc cagaatgctg caggacttga gaagacctca cctagaaatt 2940
 gacacaagt gaccttaggc cttcctctct ccagatgttt ccagacttcc ttgagacacg 3000
 gagcccagcc ctccccatgg agccagctcc ctctatttat gtttgcactt gtgattatatt 3060
 attatttatt tattatttat ttatttacag atgaatgtat ttatttggga gaccggggta 3120
 tcctggggga cccaatgtag gagctgcctt ggctcagaca tgttttccgt gaaaacggag 3180
 ctgaacaata ggctgttccc atgtagcccc ctggcctctg tgcttcttt tgattatgtt 3240
 ttttaaaata tttatctgat taagtgtgt aaacaatgct gatttgggtga ccaactgtca 3300
 ctcatgtctg agcctctgct ccccagggga gttgtgtctg taatcgccct actattcagt 3360
 ggcgagaaat aaagtttgct tagaaaagaa acatgggtct cttcttgga ttaattctgc 3420
 atctgcctct tcttgtgggt gggaagaagc tccctaagtc ctctctccac aggttttaag 3480
 atccctcgga ccagtcacca tccttagact cctagggccc tggagaccct acataaacia 3540
 agcccaacag aatattcccc atccccagg aaacaagagc ctgaacctaa ttacctctcc 3600
 ctcagggcat gggaaattcc aactctggga attc 3634

<210> 35

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known

effective ASO

<400> 35

cctgctcccc cctggctcc

19

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 36

ccccaccac ttcccctctc

20

<210> 37

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 37

ccccaccac ttcccctctc a

21

<210> 38

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 38

tagacgataa aggggtcaga g

21

<210> 39

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 39

cagtctggga agctctgagg g

21

<210> 40

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 40

gggatagctg gtagtttag

19

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 41

catttctttt ccaagcgaac

20

<210> 42

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 42

aggctoctgt ttccggggag a

21

<210> 43
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 43
ctggtccctt ggtgtcctcg c 21

<210> 44
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 44
ttgctgttct ccctcctggc t 21

<210> 45
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 45
ttcttgccct ccctccctac t 21

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 46
cctctttccc ttaccctcct g

21

<210> 47
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 47
ggtctccctc cccaactctc c

21

<210> 48
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 48
cttcttcct gttcccctgg c

21

<210> 49
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 49
tatctccctc gtctcccatc t

21

<210> 50
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 50

gtttcccctc catctccctc c

21

<210> 51

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 51

gaagcctccc cgctctttgc c

21

<210> 52

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 52

aaagctttaa gtcccccgcc c

21

<210> 53

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 53

cctattccct ttccctcccaa a

21

<210> 54
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 54
cccttaggtt tcccagcaag c

21

<210> 55
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 55
ctggtctttc cacgtcccat t

21

<210> 56
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 56
gcagccttgt cccttgaaga g

21

<210> 57
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 57
cttgagctca gctccctcag g 21

<210> 58
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 58
gctggaagac tcctcccagg t 21

<210> 59
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 59
gctgagcagg tcccccttct c 21

<210> 60
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 60
agagccacaa ttcccctttct a 21

<210> 61
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 61

gcctgaagac agcttcccaa c

21

<210> 62

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 62

cagtcacggc tcccgtggg

19

<210> 63

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 63

gggaaattcc caggaccagg g

21

<210> 64

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 64

atttggaatt cccagagtgg g

21

<210> 65

<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Candidate
TNF(alpha) ASO

<400> 65
actttcccag caggtatttg g 21

<210> 66
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Known
effective ASO

<400> 66
cagccatggt tcccccaac 20

<210> 67
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Known
effective ASO

<400> 67
ttccccagat gcacctgttt 20

<210> 68
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Known
effective ASO

<400> 68

gacatccctt tccccctcgg

20

<210> 69

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 69

gatccccggg taccga

16

<210> 70

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 70

gtcagccatg gtcccccccc

20

<210> 71

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 71

atgccctcat ccttcccccc at

22

<210> 72

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 72

gttctcccag cgtgtgccat

20

<210> 73

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 73

aacccttatt tgtgtcccac c

21

<210> 74

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 74

gtccaagag ttgaggag

18

<210> 75

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 75

cacccgcctt ggcctcccac

20

<210> 76

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 76

tcccgcctgt gacatgcatt

20

<210> 77

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 77

ccatcccgac ctcgcgct

18

<210> 78

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 78

ccacgtcccg gatcatgc

18

<210> 79

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Known
effective ASO

<400> 79

tctgctgtcc ctgtaataaa

20

<210> 80
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Known
effective ASO

<400> 80
aacccagtgc tccctttgct 20

<210> 81
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Known
effective ASO

<400> 81
aaaacgtcag ccatggtccc 20

<210> 82
<400> 82
000

<210> 83
<400> 83
000

<210> 84
<400> 84
000

<210> 85
<400> 85
000

<210> 86
<400> 86
000

<210> 87
<400> 87
000

<210> 88
<400> 88
000

<210> 89
<400> 89
000

<210> 90
<400> 90
000

<210> 91
<400> 91
000

<210> 92
<400> 92
000

<210> 93
<400> 93
000

<210> 94
<400> 94
000

<210> 95
<400> 95
000

<210> 96

<400> 96

000

<210> 97

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Control
oligonucleotide

<400> 97

cagatgacct cccccgtgga a

21

<210> 98

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ASO-9

<400> 98

tcctccttgt tcccttcggc t

21

<210> 99

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Control
oligonucleotide

<400> 99

cgtcttcact tccgtgtagg c

21

<210> 100

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 2-base
mismatch of ASO-9

<400> 100

tcctcgttgt tcgcttcggc t

21

<210> 101

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 3-base
mismatch of ASO-9

<400> 101

tcctcgttgt tcgcatcggc t

21

<210> 102

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 4-base
mismatch of ASO-9

<400> 102

tccacgttgt acgcatcggc t

21

<210> 103

<400> 103

000

<210> 104

<400> 104

000

<210> 105

<400> 105

000

<210> 106

<400> 106

000

<210> 107

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Complement of
ASO-9

<400> 107

agccgaaggg aacaaggagg a

21

<210> 108

<211> 1889

<212> DNA

<213> Rattus norvegicus

<400> 108

gctttatctg ctaagctccg ctcaagttcag catgctgcgc gccgcactca gcaccgcccc 60
ccgtgggcca cgcctgagcc gcctgctgtc cgccgcccgc accagcgcgg tgccagcccc 120
caaccagcag cccgaggtct tctgcaacca gatcttcatt aacaatgagt ggcattgatgc 180
tgtcagcaag aaaacattcc ccaccgtcaa cccttccacg ggggaggtca tctgccaggt 240
agccgaaggg aacaaggagg acgtagacaa ggcagtgaag gccgctcagg cagccttcca 300
gctgggctcg ccctggcgcc gcatggatgc atctgacagg ggccggctgt tgtaccgatt 360
ggctgatctc atcgaacggg accggacctc cctggcggcc ttggagacc tggacaacgg 420
caagccttat gtcattctct acctggtgga ttggacatg gttctgaaat gtctccgcta 480
ttatgctggc tgggctgaca agtaccacgg gaaaaccatt cccatcgatg gcgacttctt 540
cagctacacc cgccacgagc ctgtgggcgt gtgtggacag atcattccgt ggaacttccc 600
gctcctgatg caagcctgga agctgggccc tgccttggca actggaaacg tgggtggtgat 660
gaaagtggcc gagcagacac cgctcactgc actctacgtg gccaaactga tcaaggaggc 720
aggcttcccc cctggtgtgg tcaatattgt tcttggtatc ggccctaccg ccgggggtgc 780
catcgctgcc cagcaggatg tggacaaagt ggccttcaca gggtccactg aggttggtca 840
cctaattccag gttgccgccc ggagcagcaa tctcaagaga gtaaccctgg aactgggggg 900
aaagagcccc aatatcatca tgtcagacgc tgacatggac tgggctgtgg aacaggccca 960
ctttgccctg ttcttcaacc agggccagtg ctgttgtgcg ggctcccga ccttcgtgca 1020
ggaggatgtg tatgatgaat tcgtggaacg cagtgtggcc cgggccaagt ctcggtggt 1080
cggaaccct ttgcagagcc ggaaggagca ggggccgcag gtggatgaga ctcaagttta 1140
gaagatcctg ggctatatca agtcaggaca acaagaagg gcgaagctgc tgtgcggtgg 1200
gggcgcgcc gcagaccgtg gttacttcat ccagcccacc gtgttcggag acgtcaaaga 1260

tggcatgacc	atcgccaagg	aggagatctt	cggaccagtg	atgcagatcc	tcaaattcaa	1320
gaccattgag	gaggttgtgg	ggcgagccaa	taattccaag	tacgggctgg	ctgccgctgt	1380
cttcacaaaag	gacctggaca	aggccaatta	cctgtcccaa	gctctgcagg	ctgggactgt	1440
gtggatcaac	tgctacgatg	tgtttggggc	ccagtcccca	tttgggtggct	ataagatgtc	1500
ggggagcggc	agggagctgg	gcgagtatgg	cctgcaggcc	tacacggaag	tgaagacggt	1560
caccgtcaaa	gtgccacaga	agaactcgta	aagtggcgtg	caggcttcct	cagccagcgc	1620
ccaaaaaccc	aacaagatcc	tgagaaaagc	caccaccaag	cacactgcgc	ctgccaagag	1680
aaaaccctt	caccaaagcg	tcttggggca	agaaagtcag	gatttgataa	acagggcagg	1740
gttgggtggc	ggtgtgtggg	gagcatccca	gtaaactggg	gaagggagga	gctctgtgca	1800
gactaccacg	cgcacgcaca	cacgctcact	gggtccttct	gtgctggatg	ctgggtccac	1860
cctcagtgtc	taaacaaatg	agcaataaa				1889

<210> 109

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Complement of
human anti-ALDH2 ASO

<400> 109

agctgaaggg gacaaggaag a

21

<210> 110

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 110

gctctcggtc	cgctcgctgt	ccgctagccc	gctgcgatgt	tgcgcgctgc	cgccgctcgg	60
gccccgcctg	gccgcccgt	cttgtcagcc	gccgccaccc	aggccgtgcc	tgcccccaac	120
cagcagcccg	aggtcttctg	caaccagatt	ttcataaaca	atgaatggca	cgatgccgtc	180
agcaggaaaa	cattccccac	cgtcaatccg	tccactggag	aggtcatctg	tcaggtagct	240
gaaggggaca	aggaagatgt	ggacaaggca	cgtgaaggcc	gcccggggcg	cttccagctg	300
ggctcacctt	ggcgccgcat	ggacgcatca	cacagcggcc	ggctgctgaa	ccgcctggcc	360
gatctgatcg	agcgggaccg	gacctacctg	gcggccttgg	agaccctgga	caatggcaag	420
ccctatgtca	tctcctacct	ggtggatttg	gacatggtcc	tcaaattgtct	ccggtattat	480
gccggctggg	ctgataagta	ccacgggaaa	accatcccca	ttgacggaga	cttcttcagc	540
tacacacgcc	atgaacctgt	gggggtgtgc	gggcagatca	ttccgtggaa	tttcccgtc	600
ctgatgcaag	catggaagct	gggccagcc	ttggcaactg	gaaacgtggt	tgtgatgaag	660
gtagctgagc	agacacccct	caccgccctc	tatgtggcca	acctgatcaa	ggaggctggc	720
tttccccctg	gtgtgggtcaa	cattgtgcct	ggatttggcc	ccacggctgg	ggccgccatt	780
gcctcccatg	aggatgtgga	caaagtggca	ttcacaggct	ccactgagat	tggccgcgta	840
atccaggttg	ctgctgggag	cagcaacctc	aagagagtga	ccttggagct	gggggggaag	900
agccccaaca	tcatcatgtc	agatgccgat	atggattggg	ccgtggaaca	ggcccacttc	960

```

gccctgttct tcaaccaggg ccagtgtctgc tgtgccggct cccggacctt cgtgcaggag 1020
gacatctatg atgagtttgt ggtgccggagc gttgcccggt ccaagtctcg ggtggtcggg 1080
aaccctttg atagcaagac cgagcagggg ccgcaggtgg atgaaactca gtttaagaag 1140
atcctcggct acatcaacac ggggaagcaa gagggggcga agctgtctgt tggtgggggc 1200
attgtgtctg accgtgggta cttcatccag cccactgtgt ttggagatgt gcaggatggc 1260
atgaccatcg ccaaggagga gatcttcggg ccagtgtatg agatcctgaa gttcaagacc 1320
atagaggagg ttgttgggag agccaacaat tccacgtacg ggctggccgc agctgtcttc 1380
acaaaggatt tggacaaggc caattacctg tcccaggccc tccaggcggg cactgtgtgg 1440
gtcaactgct atgatgtgtt tggagcccag tcaccctttg gtggctacaa gatgtcgggg 1500
agtggccggg agttgggcca gtacgggctg caggcataca ctgaagtga aactgtcaca 1560
gtcaaagtgc ctcagaagaa ctcataagaa tcatgcaagc ttcctccctc agccattgat 1620
ggaaagttca gcaagatcag caacaaaacc aagaaaaatg atccttgcgt gctgaatatc 1680
tgaaaagaga aatttttctt acaaaatctc ttgggtcaag aaagttctag aatttgaatt 1740
gataaacatg gtgggttggc tgagggtaag agtatatgag gaacctttta aacgacaaca 1800
atactgctag ctttcaggat gattttttaa aaatagattc aaatgtgtta tcctctctct 1860
gaaacgcttc ctataactcg agtttatagg ggaagaaaaa gctattgttt acaattatat 1920
caccattaag gcaactgcta caccctgctt tgtattctgg gctaagattc attaaaaact 1980
agctgtctct                                     1989

```

<210> 111

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human
anti-ALDH2 ASO

<400> 111

tcttccttgt ccccttcagc t

21